WHAT IS CLAIMED IS:

1. A reforming reactor having a layered structure, comprising an alternating sequence of individual reforming layers filled with a reforming catalyst material for an endothermic reforming reaction, and heating layers which adjoin the reforming layer via a thermally conductive partition and contain a heating-space catalyst material for an exothermic reaction; wherein

volume of the reaction layers is greater than volume of the heating layers; and

heating-space catalyst material is introduced into the corresponding heating layer as a wall coating.

2. The reforming reactor according to Claim 1, wherein the volume of the reforming layer volume is at least twice as great as the volume of the heating layer volume.

3. The reforming reactor according to Claim 1, wherein the heating layers are designed as one of catalytic burners and CO oxidation stages for the selective oxidation of carbon monoxide which is contained in the reformate gas generated in the reforming layer.

4. The reforming reactor according to Claim 1, wherein

the respective heating layers are formed by internal spaces between pairs of corrugated profile plates which bear against one another; and

adjacent pairs of corrugated profile plates are spaced apart from one another, leaving a gap which forms a respective reforming layer.

5. The reforming reactor according to Claim 1, wherein supporting elements for supporting adjacent profile plates are introduced into the respective reforming layers.

6. The reforming reactor according to Claim 1, wherein:

spacers are formed on a reforming layer side of profile plates;

the spacers support each two opposite partitions of a reforming layer with respect to one another.